

State of Hawaii
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Forestry and Wildlife
Honolulu, Hawaii 96813

October 14, 2010

Chairperson and Members
Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

Aloha Land Board Members:

SUBJECT: ANNUAL PROGRESS BRIEFING TO THE BOARD OF LAND AND NATURAL RESOURCES REGARDING IMPLEMENTATION OF THE MANAGEMENT PLAN FOR THE AHUPUA'A OF PU'U WA'AWA'A AND THE MAKAI LANDS OF PU'U ANAHULU

BACKGROUND:

On July 25, 2003, the Board of Land and Natural Resources approved in concept the ***Management Plan for the Ahupua'a of Pu'u Wa'awa'a and the Makai Lands of Pu'u Anahulu*** ("Management Plan"), a ten year plan developed jointly by the Divisions of Forestry and Wildlife (DOFAW) and State Parks (SP). In approving this Management Plan, the Board directed DOFAW and SP to provide the Board with annual updates through the following recommendation:

- '3) Require annual reports from staff that identify progress and the effectiveness of the public and private sector involvement in implementing the Management Plan."

This submittal provides a status report on implementation of the Management Plan from 2003-2010, with accomplishments over the past year indicated in bold font at the end of each Objective. Overall accomplishments are summarized in Exhibit A.

Status of the Pu'u Wa'awa'a Advisory Council (PAC): The PAC is a group of volunteers who represent diverse areas of expertise relevant to the implementation of the Management Plan. Members represent the *Hui 'Ohana mai Pu'u Anahulu a me Pu'u Wa'awa'a* (2-Ku'ulei Keakealani, Clayton Tremaine), Cultural expert (1-*vacant*), Neighboring Landowner (1-Robby Hind), Natural Resource Specialists (3-Michael Tomich, Susan Cordell, Jon Giffin), recreation use specialists (3-Bob Okawa, Frank Sayre, Alan Nakagawa), business/ecotourism specialist (1-*vacant*), 2 grazing management specialists (2-Corky Bryan, Mark Thorne), and 1 grant writing/coastal zone specialist (1-Carolyn Stewart). **The 2 vacancies for the Cultural**

Resources and Business/ecotourism seats have not been filled. The PAC has not met since October 4, 2009.

The progress to date toward implementing *The Management Plan for the Ahupua'a of Pu'u Wa'awa'a and the Makai Lands of Pu'u Anahulu* by Subject Area and Objective is as follows:

Administrative Priorities:

Objective 1. Initiate legislation for establishment of a special fund

Achieved, 2007. On October 17, 2007 as Pu'u Wa'awa'a was officially set-aside as a Forest Reserve (PWW), which has an associated Special Fund.

Objective 2: Develop a Master Plan for the proposed Kiholo State Park

Initiated, expected end date 2012. In June 2010, a contract was executed with Planning Solutions, Inc. to prepare a Master Plan, an EIS and a Cultural Impact Assessment. The primary goal for this project is to develop a plan for the wilderness park that preserves the cultural, natural, and scenic landscape and its historic resources, maintains and restores the native and Polynesian-introduced plant and animal ecosystems, preserves and protects the marine resources of Kiholo Bay and Keawaiki Bay, promotes the natural open space and open coastal views from Queen Ka'ahumanu Highway, and provides recreational opportunities insofar as they do not negatively impact the natural and cultural values of the parklands.

Objective 3. Develop new DLNR administrative rules for land areas not covered under present DLNR rules

Achieved, 2007. This Objective has been addressed through Forest Reserve rules, as indicated under Objective 1.

Objective 4. Fund and hire a Management Plan Coordinator

The initial priority under this Objective, to establish or identify an existing 501(c)(3) partner organization, has been accomplished under a formal agreement with Ka 'Ahahui o Ka Nahelehele in 2007, a group incorporated in early 2007 with the mission to assist public and private land managers in the general stewardship of native dryland forests. Other non-profits have also served in partnership roles for specific functional areas of the Management Plan. Mike Donoho, Pu'u Wa'awa'a Coordinator since 2004, resigned at the end of 2009. The Division intends to fill the position Mr. Donoho held as soon as possible, though the position is presently frozen.

Fire Management:

Objective 5. Increase public fire hazard awareness through educational programs

Ongoing, no end date. Signs have been posted along Highway 190, and Coordinator produced an informational brochure in 2006 about Pu'u Wa'awa'a and surrounding dryland forest areas. In 2008, coordinator prepared a grant proposal that was funded by the American Hiking Society to construct an informational kiosk informing visitors about the area, including the wildfire hazard risk. A 2009 grant was awarded for the development of an Educational Resource Guide that includes wildfire threat to the natural resources in the dryland forest as well as to public safety. Wildfire education is an ongoing theme during outreach events and field trips in Pu'u Wa'awa'a.

Objective 6. Reduce fire hazard at Pu'u Wa'awa'a using prevention measures

Ongoing, no end date. Fire and fuel breaks have been established and maintained along Highway 190 as well as throughout the high fire hazard areas within critical habitat at Pu'u Wa'awa'a. Fine fuel loading across the general landscape has also been managed within the existing grazing areas through Right-of-Entry permits. Access to Pu'u Wa'awa'a beyond the safety zone continues to be restricted during extreme dry conditions to reduce the potential for human-related fire starts. Federal stimulus funds have been earmarked for a project at Pu'u Wa'awa'a to expand the fire break system. A draft of the North Kona Wildfire Management Plan, that includes Pu'u Wa'awa'a and Pu'u Anahulu, is pending.

Objective 7. Provide fire pre-suppression management for conservation units

Ongoing, no end date. Re-lining of the Lake House Reservoir has been completed and filled; "green break" has been maintained along Highway 190; 20,000-gallon water tank in the remote western end of the ahupua'a has been installed. Fire break signage system to expedite wildfire suppression will be completed this calendar year. Management plans for each conservation unit are currently being prepared. In process are the Forest Bird Sanctuary Plan and the Henahena Mauka Plan.

Objective 8. Effectively suppress fire in the event that a wildland fire does occur at Pu'u Wa'awa'a

Ongoing, no end date. Wildfire preparedness and prevention actions have helped to reduce and minimize impacts of fire starts over the past few years. **Extreme drought conditions have led to several fires this past year. One fire in Pu'u Wa'awa'a was a highway start in April of 2010, which was limited to 1/4 acre of degraded land. Two fires also occurred in July 2010, one was located near the Kaupulehu flow that encompassed approximately 650 acres, or approximately 450 acres on Kamehameha Schools property and approximately 200 acres within Pu'u Wa'awa'a Forest Reserve. The other fire that occurred on July was located in Puu Anahulu near the Waimea side hunter checkstation that was approximately 10 acres. These were the first fires started within the ahupua'a in four years.**

Natural Resource Management:

Objective 9. Fence the best remaining sections of native forest and remove ungulates from these conservation units on a priority basis

Initiated, anticipated end date: 2013. Of the 12 conservation units indicated in the Management Plan, four have been constructed to date: the Waihou Unit Phase I (204 acres), the Upper Kipuka Oweowe Unit (10 acres), the Pu'u Wa'awa'a Cinder Cone Unit (70 acres), and the Pu'u Wa'awa'a Forest Bird Sanctuary ('FBS,' 3,806 acres). Kipuka Oweowe, Waihou 1, and the Cone Unit are ungulate-free. The trap-and-release project for the FBS was initiated in February of 2007, with over **1,400 feral pigs removed to date**. Maintenance of these fence enclosures, alien plant removal, and native outplantings has been conducted by the NARS field crew and volunteer efforts. Funds have been secured to construct the next enclosure, the Henahena Unit, which will protect approximately 700 acres of mid-elevation remnant forest and numerous lava tube systems. This will bring the total protected area within Pu'u Wa'awa'a to 4,790 acres, with another 2,297 to be protected by the other units proposed in the Management Plan.

Objective 10. Protect native flora and fauna by controlling non-native predators

Ongoing, no end date. A routine predator control program for rats, cats, mongoose and wild dogs has been conducted since late 2004. DOFAW staff have removed 283 mongoose and 21 feral cats this FY10 at Pu'u Wa'awa'a.

Objective 11. Control invasive weeds that suppress native plant populations

Ongoing, no end date. The Pu'u Wa'awa'a Volunteer Work Program was initiated and conducted on a monthly basis by the Coordinator since December of 2004, and one of the main tasks is invasive weed removal, targeting populations within and outside of established conservation units. Weed control work continues by the DOFAW wildlife staff, DOFAW field crews, NARS field crews, the PWW Volunteer Program, and special groups like the Youth Conservation Corps by targeting critical areas for particularly aggressive species such as banana poka, fire weed, Spanish needle, tree tobacco, and others.

Objective 12. Protect isolated occurrences of rare and endangered species

Initiated, ongoing. Implemented a paddock-by-paddock plan for fencing individual endangered species using own fieldwork time and individual and group volunteer efforts. Instead of a 60-plus acre enclosure as indicated for the proposed 'Aiea unit under Objective 9 above, individual fences have been installed around these endangered trees. This has reduced material costs, will reduce maintenance needs, and facilitate fuels management between trees. **Spot fencing of the remaining *Zanthoxylum dipetalum tomentosum* in the wild has been accomplished by the HCP specialist and Plant Extinction Prevention field specialist.**

Objective 13. Restore native plant populations including rare and endangered species

Ongoing, no end date. Outplantings have been organized by NARS staff and the Coordinator, and have been conducted by staff, special groups, and the Volunteer Work Program in all four main conservation units as well as several smaller units throughout Pu'u Wa'awa'a. **NARS staff and the 2010 HYCC program planted approximately 500 plants on the Pu'u Wa'awa'a Cinder Cone.**

Objective 14. Develop a resource management and monitoring program

Initiated, ongoing. The Hawaii Permanent Plot Network (HIPNET) has designated a ten hectare plot in the Forest Bird Sanctuary through the Hawaii Experimental Forest, which will monitor changes in the upper forest areas on a long term basis. **This plot has not been established yet.**

Objective 15. Create a native plant seed orchard at the Pu'u Wa'awa'a Meeting House

Initiated, expected end date 2011. This project was initiated in September of 2006 with the establishment of a 7,000 square-foot enclosure between the Meeting and Lake Houses, with nearly 150 plantings to date representing 2 dozen species. **The 50-acre Hauaina paddock continues to be cleared of fountain grass and replanted with native species. About 200 trees have been planted in the past year, and approximately 6 acres of fountain grass removed.**

Objective 16: Preserve and protect unique native invertebrate populations at Pu'u Wa'awa'a and the makai lands of Pu'u Anahulu

Initiated, no end date. Administering research permits for the study of native bee populations, and coordinated the withdrawal of commercial bee keepers from Pu'u Wa'awa'a, who have been operating in conflict with native bee habits for over 70 years. Worked with game managers to relocate bee keeping activities to Pu'u Anahulu. The proposed Henahena Unit will protect and enhance invertebrate populations present in the numerous cave systems in this area.

For the Kiholo State Park Reserve Master Plan, reconnaissance level field survey of terrestrial invertebrate resources within the reserve will be conducted. The objective of the survey will be to identify endangered, threatened, candidate, endemic, and indigenous species resident on the land. Survey techniques for terrestrial invertebrates include identification by visual observation, inspection of host plants, baiting, trapping, and night monitoring with ultraviolet or mercury vapor light

No subterranean invertebrate surveys will be conducted. New biological surveys of the cave interiors are not planned as part of this work, as the information they might provide is not deemed necessary for management decisions that are needed at this time. **No changes from last year.**

Objective 17: Protect and enhance native bird populations and their habitat

Ongoing, no end date. The fencing and ongoing predator control programs for the Pu'u Wa'awa'a Forest Bird Sanctuary is a first step in the protection and future enhancement of native bird populations in the upper forest reaches at Pu'u Wa'awa'a. Research projects related to forest bird behavior and habitat are ongoing. Once ungulates are removed from the FBS, known forage trees and plants will be outplanted to improve habitat.

Botanical, avian, and mammalian reconnaissance level surveys will be conducted for the Kiholo State Park Reserve Master Plan, the purposes of which are to document the bird and animal species that are occurring; provide baseline data on the relative abundance of avian species that inhabit the area; and ascertain if any endemic federally listed vertebrate species are currently within the project area.

The 50-acre Hauaina Enclosure project is ongoing and will enhance degraded landscape to benefit of nene, stilt and coot habitat. An additional 28 acres has been protected around the upper elevation Poohoo reservoir for the benefit of native waterbirds.

Objective 18. Manage Fisheries Resources at Kiholo Bay

Initiated, no end date. This is a near-term priority for *Hui Aloha Kiholo* community partner, who has already drafted a bill that would ban any net fishing in the inner bay area, a habitat essential for juvenile marine life for the greater coastal region. **This proposed rule change is pending. The master planning process for Kiholo Bay will address near-shore resource management.**

Objective 19. Continue sea turtle protection and research in the Kiholo Bay Area

Ongoing, no end date. Hawaii Preparatory Academy and National Marine Fisheries Service continue their ongoing sea turtle research in Kiholo Bay.

Objective 20. Protect anchialine pool resources in the coastal regions of Pu'u Wa'awa'a and Pu'u Anahulu

Ongoing, no end date. A reconnaissance level anchialine pond survey will include the collection of information needed to prepare a summary description of the anchialine features present within the park boundaries and documentation of the fishes and macro invertebrates that occur or potentially might occur in the anchialine ponds. Standard survey techniques will be used that involve direct observation and collection of animals using dip nets.

The physiographic composition of the coastal strand and intertidal environments fronting the reserve will be described, including the location of anchialine features in the coastal zone of the park boundary. A

description of the shore and shallow intertidal zones will be provided with particular emphasis on the potential habitat for listed turtles.

The master planning process for Kiholo Bay will address anchialine pool protection and management. Maintenance of weeds at Waiaalepī, the largest anchialine pool on State land at Kiholo, is ongoing.

Objective 21. Control feral ungulate populations makai of the Queen Ka‘ahumanu Highway

Ongoing, no end date. **The trap-and-relocation of these animals in a nearby game management area is ongoing. It is anticipated that feral goat ingress makai of Queen Ka‘ahumanu Highway will continue indefinitely.**

Objective 22. Protect biological cave resources

Ongoing, expected end date 2013. Since 2004, the research permits have been issued to Douglass Medville of the National Speleological Society to survey caves in the Kīholo and greater Pu‘u Wa‘awa‘a region. Maps of surveyed caves are provided to the state at no cost. **Mr. Medville and his team continue to work pro bono in Pu‘u Wa‘awa‘a under a Special Use Permit. Maps are archived in the Coordinator’s office for use in a future Cave Management Plan for Pu‘u Wa‘awa‘a.**

Objective 23. Provide areas for scientific research supporting restoration efforts

Achieved, 2007. Coordination with USFS and the development of the Hawaii Experimental Tropical Forest is ongoing. **No change from last year.**

Objective 24. Fund and hire permanent field staff to implement natural resource management objectives

Ongoing. A crew leader was hired through a watershed grant to the Three Mountain Alliance. This individual began work on September 1, 2010 and will serve in a capacity that addresses this Objective, as well as Objective Nos. 41, 47 and 51.

Grazing Management:

Objective 25. Continued use of grazing as a means to control fine fuels build up along Highway 190, and at both existing and future conservation units

Ongoing, no end date. Permitted grazing for fine fuels control along Highway 190 has been ongoing since March 2005. Expanding the water system and a finalized Grazing Management Plan will improve the effectiveness of permitted grazing at Pu‘u Wa‘awa‘a. **No change from last year.**

Objective 26. Develop and implement a long-term grazing plan supporting the diverse objectives of the Pu'u Wa'awa'a management plan
Initiated, expected end date 2011. A draft of the Grazing Management Plan is pending. **No change from last year.**

Public Hunting Program:

Objective 27. Continue to provide a safe and quality hunting environment
Ongoing, no end date. The public hunting program continues at Pu'u Wa'awa'a, and Coordinator provides information on upcoming hunts to related individuals and organizations, as needed. **No change from last year.**

Objective 28. Provide sustainable public hunting opportunities
Ongoing, no end date. The public hunting program is integrated with other aspects of Management Plan implementation. September 2010 is the 3rd year in which DOFAW has issues ungulate control permits to the public to assist in controlling mammals until the revised hunting rules have been established.

Objective 29. Enhance game habitat in selected areas of Pu'u Wa'awa'a
Ongoing, no end date. Several game bird guzzlers have improved the availability of water in several areas within the GMA. As stated in the Pittman-Robertson Plan for Hawaii Island, mitigation measures are implemented to offset habitat loss due to game animals. **No change from last year.**

Objective 30. Utilize public hunting to reduce feral ungulate pressure on remaining native plant resources in proposed conservation unit areas
Ongoing, expected end date 2013. This was done in the FBS as part of a phased ungulate removal plan. All constructed conservation units are ungulate-free or are approaching ungulate-free status. Public hunting continues in areas proposed as conservation units. **No change from last year.**

Objective 31. Promote youth hunter programs
Pending, initiate with approval of new hunting rules, 2011. Youth hunting program has been discontinued until changes in the hunting statutes and rules will authorize youth hunting seasons. **No change from last year.**

Objective 32. Promote disabled hunter access programs
Pending, initiate with approval of new hunting rules, 2011. Program will not be reinstated until changes in the hunting rules allow hunting especially for persons with disabilities.

Objective 33. Determine hunting seasons for feral sheep, goats and pigs based on monitoring their movement, population trends, and habitat conditions
Initiated, expected end date 2011. Surveys done by DOFAW staff has lead to distinct hunting seasons at Pu'u Wa'awa'a which are currently pending in the new changes to hunting rules.

Objective 34. Expand predator control program
Ongoing, no end date. This has taken place with the initiation of predator control in the FBS and Waihou units, and the FBS program has expanded to small mammals in addition to feral pigs, sheep and goats.

Objective 35. Develop game bird guzzlers
Ongoing, expected end date 2013. **Wildlife staff has constructed three new watering units this past fiscal year.**

Objective 36. Establish dove flights in Pu'u Wa'awa'a by establishing forage plots
Not initiated, startup date to be determined by Hunting Subcommittee of the PWWAC. **No change from last year.**

Objective 37. Increase game bird hunting opportunities
Not initiated, expected startup date 2011. Habitat has not improved to the point where additional game bird hunts can be scheduled. Special hunts or additional opportunities cannot be scheduled until changes in the hunting statutes and rules are implemented to allow this objective to be pursued. **Dry conditions in 2010 has also prevented this objective from advancing.**

Objective 38. Manage pasture vegetation via grazing to provide game bird habitat
Ongoing, no end date. Pasture vegetation is being managed per Objective 25.

Objective 39. Encourage game species research within Pu'u Wa'awa'a
Ongoing, no end date. The current HCP involves game species research.

Objective 40. Develop a bird dog training area within Pu'u Wa'awa'a

Achieved, 2005. Three bird dog training areas have been designated within Pu'u Wa'awa'a by Wildlife staff in 2005. Since then, there have been no inquiries from the hunting public to utilize these training areas.

Objective 41. Fund and hire one permanent position to implement management objectives for hunting management within Pu'u Wa'awa'a

Not initiated, expected end date 2013. No change from last year.

Trails, Access and Ecotourism:

Objective 42. Survey and develop historic trails within and adjacent to the ahupua'a for public use

Ongoing, expected end date 2013. All known historic trails have been surveyed and some are open through the Na Ala Hele Program, however use of certain historic trails is not encouraged due to the lack of staff to maintain and provide oversight of these trails over remote State lands. Old bulldozer paths that have become overgrown are cleared as appropriate to provide public access as trails and provide the basis for the public hiking program at Pu'u Wa'awa'a, which currently features about 10 miles of trails in the hunting Safety Zone. Informational signs and a trail map/brochure are available to the public for the system. **No change from last year.**

Objective 43. Document Current Public Use of the Kīholo Bay Area

Achieved, 2007. Document: *Kīholo State Park Reserve: A Social Assessment*. Elizabeth Pickett, May 2007. The Kīholo State Park Master Plan will update public use information through its development process.

As part of the master planning process, public use patterns in the reserve, bay and surrounding area will be assessed. To identify existing use patterns, past studies will be reviewed and consultation made with State Parks' personnel and other persons familiar with the use of the area. Pedestrian surveys of the number of people present in the park on two different days will be conducted, with State Parks selecting the days that represent 'typical' or 'normal' usage.

A curator agreement between State Parks and the non-profit Hui Aloha Kiholo was executed in December 2009. This agreement recognizes the Hui as a partner for the park area and authorizes them to conduct various volunteer projects in the park. The Hui received an HTA grant in early 2010, and in cooperation with State Parks staff in Kona, an Interpretive Ranger was hired and trained. The Ranger has been on the job since June, 2010.

Objective 44. Construct new trail segments as needed

Ongoing, no end date. Currently, existing bulldozer paths are utilized for the trail system as stated above in Objective 42. There are enough of these existing surface disturbances within the hunting Safety Zone to develop a system that can be open through hunting seasons routing visitors through the dryland forest and away from sensitive flora as needed. Existing 4-wheel drive roads outside of the Safety Zone will provide seasonal access for hiking to the more remote areas and campgrounds on a permit basis at which time the management capacity of the program is adequate to do so. **No change from last year.**

Objective 45. Provide public access to Pu'u Wa'awa'a on selected roads

Achieved, 2004. Vehicular access is limited to the Safety Zone, as vehicle-related fire starts were historically responsible for several wildfires in Pu'u Wa'awa'a, and for the potential conflict with ranching and other Plan Objectives. Here, roads will be maintained so that 2-wheel drive cars can be safely driven to trailheads, gathering places and to other points of interest for visitors to the Forest Reserve. **No change from last year.**

Objective 46. Manage short- and long-term commercial ecotourism activities

Not initiated, expected end date 2013. The Departmental policy on commercial activities provides for adequate protection of the resource and non-fee use by the public prior to development of commercial use, and therefore it is premature to develop ecotourism activities at Pu'u Wa'awa'a at this time. **No change from last year.**

Objective 47. Fund and hire permanent field staff to implement management objectives for trails and access projects and the proposed Kiholo State Park, and support enforcement within for both ahupua'a

Not initiated, expected end date 2013. **No change from last year.**

Cultural and Archeological Resources:

Objective 48. Conduct a comprehensive cultural and archaeological survey of Pu'u Wa'awa'a and the makai portion of Pu'u Anahulu

Not initiated, expected end date 2013. Funding for this objective was pursued in 2008, but was not approved. Other funding sources are currently being sought.

For the Kiholo State Park Reserve Master Plan, a full reconnaissance survey to identify all surface sites and lava tube openings within the reserve will be conducted and include systematic pedestrian survey of all lava surfaces, and exploration of all lava tubes to a distance of approximately 30 meters, excluding caves previously surveyed by State Parks.

GPS coordinates for all isolated surface features and cave openings and polygon coordinate data for the perimeter of archaeological complexes will be collected. Point data will be collected for lava tube openings within such complexes and linear data for trails. Photographs of each feature will be taken. Descriptive data will be collected for all previously undocumented or insufficiently documented features and feature complexes, using terms to describe the individual architectural components of such features, such as topographical context, type of vegetative cover, proximity to or association with anchialine ponds.

No changes from last year.

Objective 49. Protect and Restore Cultural Sites

Not initiated, expected end date 2013. Pending the completion of Objective 48 above. **No change from last year.**

Objective 50. Establish protocol for sustainable traditional and cultural gathering

Initiated, expected end date 2011. The Advisory Council subcommittee on Cultural Resources is in the process of developing this protocol. **No change from last year.**

Cultural and Environmental Education Program Development:

Objective 51. Fund and hire an education center staff to initiate education and volunteer programs

Initiated, expected end date 2011. A proposal is under review to fund this position. Education and volunteer programs are ongoing and currently a responsibility of the Coordinator.

Facilities and Infrastructure:

Objective 52. Upgrade and maintain Structures B3, B4, B5, B6, B8, B10, B12, B13, B14 and B15 to support Management Plan operations and objectives

Ongoing. B3, B10, B14, and B15 upgrades are complete with maintenance ongoing; B4, B5, B6, and B8 upgrades are in process, expected end date 2011; and structures B12 and B13 will be demolished as the old quarry site has been selected for the new Hawaii Experimental Tropical Forest facilities, expected end date 2011.

Objective 53. Upgrade Structures B1, B2 and B9 for use by livestock permittee

Achieved, 2004. These structures have been maintained and are in use by the livestock permittee and DOFAW staff.

Objective 54. Establish an education center at Structure B7

Initiated, expected end date 2011. This structure has been utilized by various groups for education-related purposes regularly over the past five years, but requires extensive renovations. **Funds are currently being sought by DOFAW and partner Nahelehele to upgrade this facility, until which time a permanent facility is established in partnership with the HETF at the old quarry site.**

Objective 55. Demolish and remove Structure B11

Achieved, 2006.

Objective 56. Upgrade Cultural and Environmental Education facilities

Initiated, expected end date 2012. See Objective 54. A non-profit partner group, Hui Aloha Kiholo, is working toward securing funds needed to upgrade structure B16. **This will also be addressed in the Kiholo Master Plan (Objective 2).**

Objective 57. Repair water reservoirs and tanks at three existing sites

Ongoing, expected end date 2013. Re-lining of the meeting house reservoir is complete. **Funds are being sought to re-line the Poohoohoo reservoir. Re-lining the Hale Piula catchment is in the planning stage.**

Objective 58. Install seven new water catchment tanks in Pu'u Wa'awa'a

Initiated, expected end date 2013. Three catchment tanks have been installed: Kipuka Oweowe, Waihou 1, and Pu'u Wa'awa'a Cone Units. The other four are pending completion of the proposed conservation units per Objective 9. **No change from last year.**

Objective 59. Upgrade and expand existing waterline system

Initiated, expected end date 2011. Negotiations with an adjacent landowner to establish a utility right-of-way to bring water from Hawaii County's Kaloko tank have been unsuccessful to date. **No change from last year.**

Objective 60. Repair and maintain existing roads within Pu'u Wa'awa'a

Ongoing, no end date. **The main paved road will be repaired in October, 2010. The main unpaved roads across the mauka and makai lands have been mowed or sprayed to manage vegetation to reduce fire starts.**

Objective 61. Maintain the airplane landing strip

Ongoing, no end date. The airstrip is maintained as an emergency landing facility. **No change from last year.**

Objective 62. Develop a Public Shooting Range

Deferred, 2004. The public shooting range is now located outside of the Management Plan project area and is being developed by Hawaii Island Public Shooting Range committee composed of interested staff and citizens.

Funding summary for FY10:

In-kind Contributions

Grazing Permittees – cattle, water, fencing, labor, equipment, fuel	\$300,000
Volunteers–weeding, planting, seed collection, trail work (1,500 hrs)	<u>\$31,500</u>
	\$331,500

Partner/Grant Funding

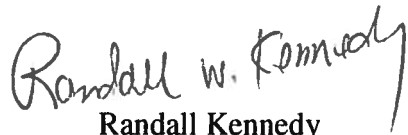
NRCS Grant–2010 allocation	\$19,249
HTA Grant–Poohoohoo Reservoir fencing	\$25,000
American Forests grant, Poohoohoo planting	\$14,000
HTA Grant - Kīholo Interpretive Ranger	\$50,000
Section 6 USFWS Funds	<u>\$14,000</u>
	\$122,249

Revenue

Cell Tower lease fee–Puʻu Anahulu	\$18,400
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TOTAL FY10	\$472,149
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Respectfully submitted,



Randall Kennedy
Acting DOFAW Administrator

Attachment

APPROVED FOR SUBMITTAL:



LAURA H. THIELEN, Chairperson
Board of Land and Natural Resources

Exhibit A. Implementation Progress by Objective for the *Management Plan for the Ahupua'a of Pu'u Wa'awa'a and the Makai Lands of Pu'u Anahulu*, 2003.

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